The New Style of Crab Fishery

U.S. Coast Guard and industry work together to make fisheries safer.

by Petty Officer Sara Francis
U.S. Coast Guard 17th District, Office of Public Affairs

"Hook it!" A crewman leans over the side of the vessel, straining to hook the buoy rope that marks the prize. The crab pots have been soaking for 13 hours. He brings the rope onboard and slings it into the power winch. It begins to rise to the surface. Have they found the crabs? Metal breaks the surface as the first pot of the string appears. Red king crabs teem inside. As the pot swings over the deck and opens, the crabs spill out onto the processing table. Each crab is like a $20 bill, with legs.

Crab fishing is labeled as one of the most dangerous professions in the world. The U.S. Coast Guard, in cooperation with the Alaska Department of Fish and Game (ADF&G), the North Pacific Fisheries Management Council, and the National Marine Fisheries Service, is working to make the fisheries safer (Figure 1). Hands-on safety training, teamed with safety compliance inspections, has greatly reduced the number of accidents and deaths over the last decade. Since 1999, there has been a 65 to 70 percent decline in fatalities, due to vessel loss in the crab fisheries. In line with those efforts, federal, state, and local agencies and groups adopted the Crab Rationalization Plan for the 2005–2006 winter season. The plan dictates that the crab fisheries in the Bering Sea and the Aleutian Islands will no longer be derby-style fisheries.

Figure 1: Chief Petty Officer Dave Simmerman and Petty Officer Third Class Sarah Vega from Marine Safety Detachment Kodiak visually inspect a life ring and emergency marker light on the fishing vessel *Provider* during a dockside exam. The exam is intended to help the *Provider* prepare for an upcoming red king crab fishery. Petty Officer Kip Wadlow, USCG.

A Sea Change

"The Crab Rationalization Plan is the most complex fisheries management tool we've used yet," said Chief Petty Officer Zane Reser, a Coast Guard investigator and fishing vessel examiner from Marine Safety Office Anchorage. The derby-style fishery forced fishermen to a heightened level of competition, by hosting an overall quota of crabs to be caught as fast as possible. The fishery would last a week to 10 days, until the quota was met. The desire to catch as many crabs as possible, equaling as much money as possible, drove crews beyond their limits and caused them to make poor judgment calls where safety was concerned to maximize their haul.

The rationalization plan eliminated the overall quota and dealt out individual fishing quotas to boats, based on participation and catch history. Vessel operating costs have made the fishery uneconomical for some vessels. They will spend more money going fishing than the catch will bring in. Most of these vessels have chosen to join co-ops and allow the crews of larger vessels that can carry and use more pots to fish their quota for a percentage of the profit. Pot limits are established by ADF&G and have nothing to do with stability.

There are limits on the number of pots to be fished. For instance, last year the limit was 200 pots, so, if a vessel could carry 300, it could still only fish 200. If a vessel could only carry 120 pots and wanted to fish 200, it had to make an extra trip and use wet storage areas. This year, the pot limit has been set at 450 pots per vessel.

Vessel Stability is Vital

Every vessel has a stability letter and stability book, dictating the number of pots and supplies it can carry at any one time (Figure 2). The letter is also based on the size and weight of the pots. Many of the stability letters Coast Guard officials have seen in recent years dictate a vessel can carry a certain number of pots, but the letter lists those pots at 600 pounds rather than the 800 to 1,000 pound pots officials find onboard. Changing the weight of the pots radically changes the physics and stability of the vessel. It is vital that the crews of crab vessels abide by their stability letter, and, if pot weight or height has changed, they should obtain a new letter that takes the new dimensions into account.

The loss of the fishing vessel *Big Valley* during the 2005 Bering Sea opilio crab season vividly demonstrated the importance of vessel stability. While the official investigation to the incident is not complete, it is clear, based upon the information collected by Coast Guard investigators following the sinking, that the *Big Valley* was not only overloaded, but the average pot weight as listed in the vessel's stability letter did not match the weight of the pots that were loaded on the vessel. Specifically, while the pot weight as recorded in the *Big Valley*'s stability letter was 600 pounds (including line and buoys), the average weight of the pots onboard was determined to be 780 pounds. This 30 percent difference is dramatic and, alone, could have significant effects upon vessel stability.

Figure 2: The crew of the 103-foot fishing vessel *Determined* has stacked crab pots onboard in preparation for the 2005 Bristol Bay king crab opener. Petty Officer Chris McLaughlin, USCG.

Crab vessels that will be participating in the 2005

Figure 3: Fishermen repair and rig crab pots for loading at the *Western Pioneer* dock in Kodiak. Petty Officer Chris McLaughlin, USCG.

Bristol Bay red king crab fishery (Figure 3)—at press time, scheduled to open at 12:00 noon on October 15, 2005, and remain open through January 15, 2006—must have properly loaded pots and stability letters with accurate pot weights. Coast Guard officials will be examining crab vessels prior to their departure from Unalaska, Akutan, King Cove, and Kodiak. The Coast Guard has advised vessel owners and operators to ensure that their vessels' stability letters are current and accurately reflect current loading practices. Vessel operators should confirm that pot weights, amount of bait allowed, tank management (fuel burning practices), and number of tiers are accurate and strictly adhered to. Vessel captains are also expected to notify the Coast Guard of their departure intentions 24 hours prior to leaving port to fish. Coast Guard personnel conducted safety training (Figure 4), fishing vessel safety exams, and safety compliance inspections in Dutch Harbor, Akutan, King Cove and Kodiak during October and November 2005 to aid vessel crews in their preparations.

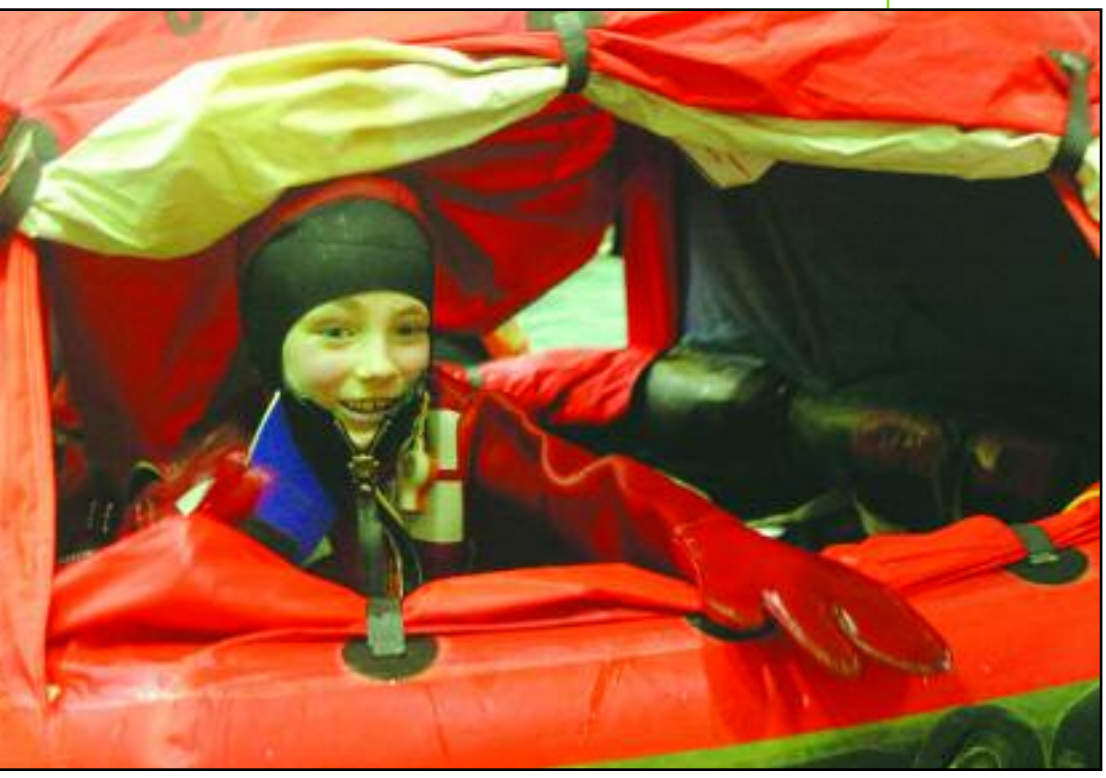

Figure 4: Max Mutch peers out of a life raft during a survival training evolution at the Kodiak Coast Guard base pool. He attended the training with his father; both are local fishermen. The training, hosted by the Coast Guard and the Alaska Marine Safety Education Association, included stability models, donning a survival suit, survival practices in the water, and use of a life raft and a Coast Guard hoist basket. Petty Officer Sara Francis, USCG.

About the author:

Sara Francis enlisted with the Coast Guard in 2000 after high school. She is now a first class petty officer and works in Public Affairs. Prior to Public Affairs she was a small boat engineer in Northern Michigan. Four of her five years have been served in Alaska. She currently lives in Anchorage with her husband and daughter.